United States Environmental Protection Agency

Region 10 Emergency Response Unit

POLLUTION REPORT

I. HEADING

Date: October 8, 2001
Subject: Coeur d'Alene River Basin Removal Actions, 2001 Construction Season
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POLREP No.1

II. BACKGROUND

Site ID:	IDD048340921
Interagency Agreement No:	DW96957237-01-7
Contract/Task Order No:	DACW41-99-D-9004/EC01
Response Authority:	CERCLA
NPL Status:	Final-Listed on September 8, 1983
State Notification:	Idaho Department of Environmental Quality
Action Memo Status:	Initial Action Memo signed October 6, 1997 Special Circumstances Action Memo signed June 26, 2000
Removal Start Date:	August 2001
Expected Completion Date:	November 2001
Site Web Page:	http://yosemite.epa.gov/r10/cleanup.nsf/sites/cda

III. SITE INFORMATION

A. Incident Category

Time Critical Removal Action (TCRA). For Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) actions where, based on evaluation of site-specific data, the U.S. EPA determines that a removal is appropriate, and that less than six months exists before an on-site removal must begin, a TCRA is initiated.

B. Site Description/Location

The Bunker Hill Mining and Metallurgical Site is located in the panhandle of northern Idaho, in the drainage of the Coeur d'Alene River. The site extends from upstream mining and metallurgical activities downstream to Lake Coeur d'Alene. Cleanup activities at the Bunker Hill Mining and Metallurgical Site to date have focused on 21 square miles encompassing the communities of Pinehurst, Page, Smelterville, Kellogg, and Wardner, Idaho. The site also includes the former locations of the Bunker Hill mine, a concentrator, a lead smelter, an electrolytic zinc plant, a phosphoric acid and fertilizer plant, a cadmium plant, a number of mills, and sulfuric acid plants.

Mining operations began in the area in 1889, with lead smelting starting in 1917. During the majority of the milling and smelting operations, few environmental protection procedures or controls were implemented. Prior to 1938, all liquid and solid residues of mine tailings from the Bunker Hill industrial complex were discharged directly into the Coeur d'Alene River and its tributaries. Thereafter, waste streams were directed to a large outwash plain located west of Kellogg and just north of the Bunker Hill industrial complex. Lead smelter slag was deposited in a pile on the western end of this plain. On the eastern end of the plain, a central impoundment area was developed and was surrounded by a 70-foot high dike of mine tailings and waste rock. All liquid wastes, including mine pump effluent, were directed to the pond for settling and then discharged to the river.

In 1973, a fire occurred in the Bunker Hill smelter baghouse. Without the functioning baghouse, over 1,000 tons of particulate lead were released into the air in this one-year period. Smokestack and other emissions from the smelting operations and acidic water discharged from mines in the area have contaminated the hillsides and other areas surrounding the site, destroying large areas of vegetation.

Historic discharges of wastes from upstream mining and milling operations broadly dispersed lead, zinc, and other hazardous substances downstream through the Coeur d'Alene River Basin, including areas in the towns of Pinehurst, Kellogg, and Smelterville.

The residential and common use areas addressed under this TCRA are located outside the 21 square mile portion of the Bunker Hill site that has been the focus of much of the site clean-up actions to date. These residential and common use areas are located in incorporated and unincorporated areas of Kootenai and Shoshone Counties, Idaho, within the floodplain of the Coeur d’Alene River. The incorporated communities include Osburn, and Wallace. The populations of these commercial and residential communities range from between 200 and 1,500

people. The unincorporated areas are generally agricultural, forest, or pasture lands with relatively low population density.

C. Assessment Results

The Corps of Engineers completed sampling of yards in 2001, the results of which demonstrate at least 13 residential properties are contaminated above soil Early Action Levels (EAL) for, predominately, lead. The EAL for lead in residential soil is 1,000 parts per million (ppm) and in common use areas is 2,000 ppm (see Action Memo, Table 1). Those residential areas exhibiting site-related metals concentrations in excess of the residential EALs have been determined to pose an unacceptable exposure risk and therefore require a TCRA. Similiarly, those common use areas exhibiting site-related metals concentration in excess of the common use EALs have also been determined to require a TCRA. Site-related contaminants of concern include antimony, arsenic, cadmium, copper, lead, manganese, mercury, zinc and possibly other metals which are likely present because of historic ore mining, milling, an waste disposal practices and local construction practices.

Clean-up efforts under this TCRA emphasize residential and common use properties with lead-contaminated soil because these areas likely present the greatest risk to children and/or pregnant women.

IV. Response Information

A. Description of Response Activities

Response activities at residential and common use properties addressed under this TCRA have been designed to provide a protective barrier to prevent human exposure to the underlying contaminated soil and include the following:

- Excavation of material contaminated with site-related metals above the EAL to a depth of 12” except:
    - 18” in designated vegetable growing areas, and
    - to a minimally greater depth if such additional excavation allows all material contaminated above Bunker-Hill action levels to be removed from the property,
- Placement of a visual barrier, such as a geotextile, between contaminated material remaining on-site and clean backfill, and
- Backfilling of excavated areas with clean gravel or soil/sod.

B. Situation

1. Current Situation

October 1, 2001 (Monday)

Personnel On-Site: CH2M Hill Constructors (CCI) (5 contractors), Stewart (5), = Total of 10.

Weather: Sunny

Description of On-Site Activities:

- Highway 3:
  Removed Cottonwood trees from river bank. Task 67% complete. Trees removed but lower trunks remain. Task will continue tomorrow. Fished all branches as possible from river.

- M&H Trailer Park:
  Fence repair Lot 2. Sod placement. Gravel compaction along sod line. Began BLM fence. Several residents absent: CH2M Hill ensured lawn watering to prevent sod from drying out.

October 2, 2001 (Tuesday)

Personnel On-Site: CCI (5), Stewart (8), = Total of 13

Weather: Partly Sunny/Cool

Description of On-Site Activities:

- Highway 3:
  Finished removing Cottonwood stumps. Finished removing tree limbs from river. Cleaned up work area.

- M&H Trailer Park:
  Build BLM fence - 100% complete. Sod placement on remaining lots - 100% complete. Fix sod borders w/crushed rock - 100% complete. Began site closure. Began general maintenance of new lawns.

October 3, 2001 (Wednesday)

Personnel On-Site: CCI (5), Stewart (3), = Total of 8

Weather: Clear

Description of On-Site Activities:

- Highway 3:
  Cut trail down to a point 10' above the river opposite the geogrid. Surveyed the shoulder & toe of the geogrid. Set 100' of silt fence 3' beyond the toe. Grabbed bank opposite the silt fence. Built spoils containment.

M&H Trailer Park:
Corps and Contractor conducted final inspection with. Developed action item list. Performed final maintenance work based on action item list.

October 4, 2001 (Thursday)
Personnel On-Site: CCI (5), Stewart (3), = Total of 8.

Weather: Clear/Windy

Description of On-Site Activities:

- Highway 3:
  Finished silt fence. Excavated and placed geogrid rock base form point "A" to "B". Started receiving mat material.

- M&H Trailer Park:
  Removal of Port-o-let from site. Awaiting surveying of property line monument before final inspection can be completed.

- Residences, R302, R308, R316, R319:
  Checked for utility locate. Video taped the four residences involved prior to work start up.

October 5, 2001 (Friday)
Personnel On-Site: CCI (3), Stewart (5), = Total of 8

Weather: Clear/Windy

Description of On-Site Activities:

- Highway 3:
  Hauled spoils to depository. Started filling sand bags. Completed 8' of quarry spall base.

- M&H Trailer Park:
  No work performed.

- Residences, R302, R308, R316, R319:
  No work performed.

October 6, 2001 (Saturday)
No work performed

October 7, 2001 (Sunday)
No work performed

2. Soil Volumes Removed to Date

Summary of Daily Excavation Volumes – Highway 3

Date	Volumes	Disposal Location
Total through 9/30/2001	0	N/A
10/1/2001	0	N/A
10/2/2001	0	N/A
10/3/2001	0	N/A
10/4/2001	50 CY	Borrow Area Landfill
10/5/2001	200 CY	Borrow Area Landfill
10/6/2001	0	N/A
10/7/2001	0	N/A
Weekly Total	250 CY	Borrow Area Landfill
TOTAL	250 CY	Borrow Area Landfill

Summary of Daily Excavation Volumes – M&H Trailer Park

Date	Volumes	Disposal Location
Total through 9/30/2001	670 CY	Borrow Area Landfill
10/1/2001	0	N/A
10/2/2001	0	N/A
10/3/2001	0	N/A
10/4/2001	0	N/A
10/5/2001	0	N/A
10/6/2001	0	N/A
10/7/2001	0	N/A
Weekly Total	670 CY	Borrow Area Landfill
TOTAL	670 CY	Borrow Area Landfill

Summary of Total Daily Excavation Volumes
All Properties

Date	Volumes
Total through 9/30/2001	1,770 CY
10/1/2001	0
10/2/2001	0
10/3/2001	0
10/4/2001	50 CY
10/5/2001	200 CY
10/6/2001	0
10/7/2001	0
Weekly Total	250 CY
GRAND TOTAL	2,020 CY

3. Properties Completed to Date

Summary of TCRA Properties

Property	Start Date	Complete Date	Area Excavated	Volume Excavated
Highway 3	9/21/01		13,636 Sq. Ft.	250 CY
Osburn Middle School	08/13/01	09/03/01	60,000 Sq. Ft.	1,100 CY
M&H Trailer Park	09/05/01	10/09/01	36,546 Sq. Ft.	670 CY
R-302	0	0	0	0
R-308	0	0	0	0
R-316	0	0	0	0
R-319	0	0	0	0
R-328	0	0	0	0
R-311	0	0	0	0
R-317	0	0	0	0
R-321	0	0	0	0
R-323	0	0	0	0
R-305	0	0	0	0
R-301	0	0	0	0
R-320	0	0	0	0
Elk Creek	0	0	0	0

C. Planned Removal Activities

Highway 3: Excavation of quarry spall toe for the geogrids to be competed week of October 8. Construction of the vegetated geogrids will begin week of October 8. On-site construction expected to be complete week of October 26.

Elk Creek: Design drawings submitted to USACE for review. USACE is waiting return call from property owner to assure he is comfortable with the limited amount of work planned at the site this construction season. USACE/EPA will contact Voice of America to determine their intentions.

Four Residences: Removal activities are expected to begin the week of October 9. A total of 13 residences are scheduled to be completed this year.

D. Next Steps

USACE to continue to perform oversight of the removal actions until completion, including liaison activities to ensure that appropriate coordination with property owners continues. USACE to assure efficient winter shut-down in conjunction with completion of as many yard removals as possible.

V. Cost Information

Estimated CCI costs (as of 10/5/01) are summarized below:

Estimated CCI Total	$ 2,142,768.80
Established Contract	$ 1,064,633.36
Remaining Capacity	$(1,078,135.44)

Note: The above accounting of expenditures is an estimate based on figures known to USACE at the time this report was written. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

VI. Disposition of Wastes

All grubbed material and mine waste-contaminated material requiring removal from the sites have been disposed on-site in the Borrow Area Landfill. A volume inventory of waste material accepted is maintained at the Borrow Area Landfill by the landfill operator Bay West, under USACE oversight. No hazardous wastes have been, or are expected to be, identified during the execution of this TCRA.

VII Distribution

To:

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VIII Status

Site actions are pending.